

REMARKS

This is a full and timely response to the Advisory Action mailed September 4, 2008 and the FINAL Office Action mailed June 23, 2008. The Examiner is thanked for the thorough examination of the present application. Upon entry of this response, claims 1-12 remain pending in the present application. Applicants respectfully request consideration of the following remarks contained herein.

I. Response to Claim Rejections Under 35 U.S.C. § 102

It is axiomatic that “[a]nticipation requires the disclosure in a single prior art reference of each element of the claim under consideration.” *W. L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1554, 220 USPQ 303, 313 (Fed. Cir. 1983). Therefore, every claimed feature of the claimed invention must be represented in the applied reference to constitute a proper rejection under 35 U.S.C. § 102. Claims 1-12 remain rejected under 35 U.S.C. §102(a) as allegedly being anticipated by the instant application’s disclosed prior art. For at least the reasons set forth below, Applicants traverse these rejections.

In the Advisory Action dated September 4, 2008, the Examiner continues to maintain the rejection of claims 1-12, arguing that the specific break points recited in each of the claims that define the series of power spectral density (PSD) masks do not alter the structural limitations of the ADSL system of central office operator recited in the claims. In particular, the Examiner argues that the “*ADSL system and central operator is capable of being configured for any break points including the break points recited in the claims.*” (Advisory Action – continuation sheet, emphasis added). The Examiner

concludes that because the break points of the PSD masks are not components of the apparatus, the rejection of the claim is maintained.

The Applicants and the Examiner continue to disagree over the patentable weight that should be given to the series of break points recited in each of the claims.

Applicants maintain that the break points are used to define specific PSD masks incorporated by a central office operator. In the Advisory Action, the Examiner states that the central operator is capable of being configured for any break points.

Applicants emphasize, however, that none of the claims include the term “capable”.

Applicants respectfully submit that the Examiner’s assertion that prior art ADSL systems are capable of being configured for any break points, including the break points recited in the claims, is not grounded in any factual basis supported by the art of record. The assertion that prior art systems are capable of performing the functional limitations recited in each of the claims appears to be mere speculation.

In an effort to advance prosecution, however, Applicants have amended each of the claims further define certain features. In view of the amendments, claims 1-12 recite limitations that are not disclosed or taught by the art of record. For example, claim 1 (as amended), recites:

1. An asynchronous digital subscriber line (ADSL) system comprising:

a central office (CO) operator configured to perform spectrum management by controlling use of overlapped modes of operation,

wherein the CO operator is further configured to provide a power spectral density (PSD) mask for spectral shaping of an ADSL overlap spectrum transmission over a plain old telephone system (POTS) mode of operation,

wherein for CO deployment, the CO operator implements the following PSD mask:

-97.5 \pm 10% decibel-milliwatts per hertz (dBm/Hz) at 0 \pm 10%

kilohertz (kHz);

- 97.5 \pm 10% dBm/Hz at 4 \pm 10% kHz;
- 92.5 \pm 10% dBm/Hz at 4 \pm 10% kHz;
- 36.5 \pm 10% dBm/Hz at 25 \pm 10% kHz;
- 36.5 \pm 10% dBm/Hz at 1104 \pm 10% kHz;
- 46.5 \pm 10% dBm/Hz at 2208 \pm 10% kHz;
- 101.5 \pm 10% dBm/Hz at 39.25 \pm 10% kHz;
- 101.5 \pm 10% dBm/Hz at 8500 \pm 10% kHz;
- 103.5 \pm 10% dBm/Hz at 8500 \pm 10% kHz; and
- 103.5 \pm 10% dBm/Hz at 11040 \pm 10% kHz.

The Examiner cites the instant application's disclosed prior art and alleges that this anticipates claims 1-12. In particular, the Examiner refers to the various standards incorporated by reference. The Examiner also cites page 4, lines 8-20 of the application and states that this discloses an *"ADSL system that manages the power spectral density about the POTS frequency band."* (See FINAL Office Action dated June 23, 2008.) The cited text passage is reproduced below:

As a means of controlling symbol transmission, Annex C also affords the ATU-C the capability to disable Bitmap-N_C and Bitmap-N_R, thereby disabling the transmission of anything but a pilot tone during the NEXT TTR periods. This mode of transmission is conventionally referred to as FBM (FEXT Bitmapped) transmission. The FBM mode uses the DBM technique to transmit data only during FEXT intervals. Accordingly, the ATU-C transmits only the pilot tone during the NEXT_R symbol. Consequently, the ATU-R disables Bitmap-N_C and does not transmit any signal during the NEXT_C symbol. The ATU-C selects the DBM or FBM mode during G.994.1 handshaking using a "DBM" bit.

Another scenario of interest in the present application is that discussed in Annex A to the G.992.1 Recommendation, requirements for ADSL systems operating in a frequency band above the POTS frequency band. As is understood, in order to avoid interference with existing POTS systems, shifts in the ADSL signal Power Spectral Density (PSD) must be made in particular frequency ranges.

(Application, page 4, lines 8-20). While the text refers to various modes of transmission (e.g., FBM) and the need for shifts in the ADSL signal Power Spectral

Density (PSD) to avoid interference with existing POTS systems, the cited text (and the remainder of the background section) fails to disclose a CO operator configured to perform spectrum management by controlling use of overlapped modes of operation. The cited art of record also fails to disclose the a CO operator further configured to provide a power spectral density (PSD) mask for spectral shaping of an ADSL overlap spectrum transmission over a plain old telephone system (POTS) mode of operation. The various claims further recite features directed to CO operators that implement various PSD masks for spectral shaping of ADSL overlap and non-overlapped spectrums via an integrated digital services network (ISDN) or plain old telephone system (POTS).

For at least these reasons, Applicants respectfully submit that independent claims 1-12 patently define over the cited art.

II. New Claim 13

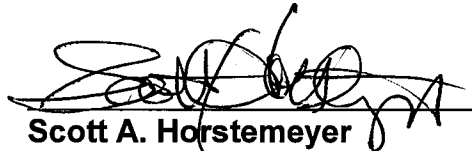
Applicants respectfully submit that new claim is patentable for at least the reason that the art of record fails to disclose, teach, or suggest “a CO operator for performing spectral shaping of ADSL spectrum transmission between the ATU-C and the ATU-R over one of: a plain old telephone system (POTS) and an integrated digital services network (ISDN), wherein the CO operator further performs spectral shaping based on whether an overlapping or non-overlapping spectrum is deployed”.

CONCLUSION

Applicants respectfully submit that all pending claims are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested. If, in the opinion of the Examiner, a telephone conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (770) 933-9500.

No fee is believed to be due in connection with this amendment and response to Office Action. If, however, any fee is believed to be due, you are hereby authorized to charge any such fee to deposit account No. 50-0835.

Respectfully submitted,



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